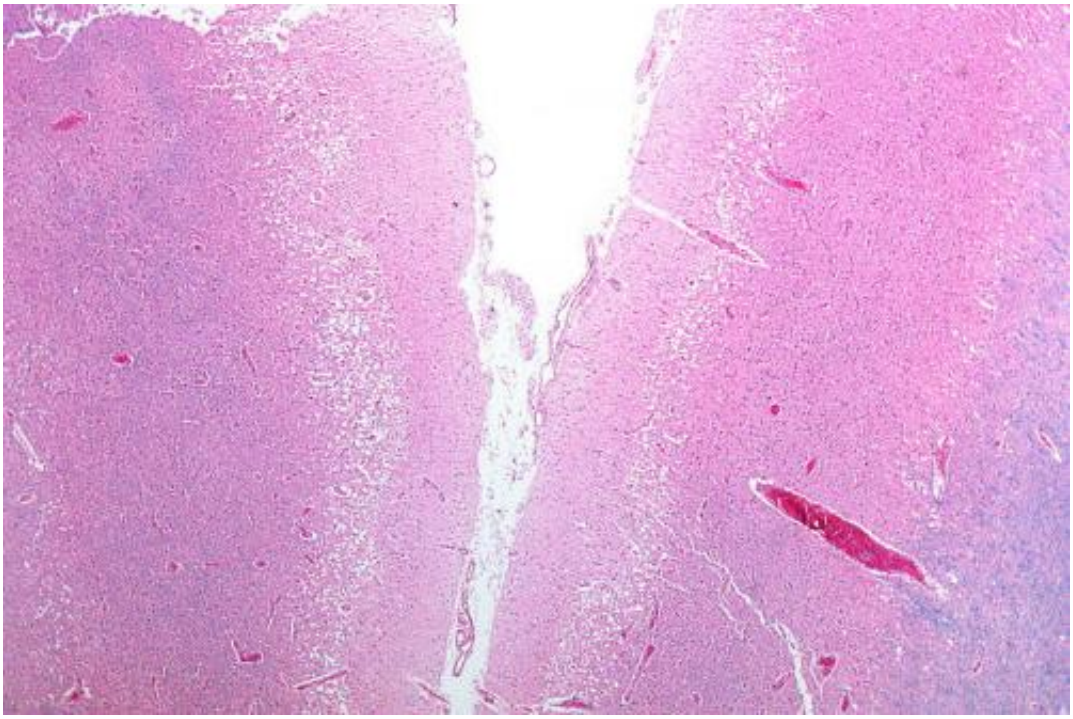
Study examines how people adapt to post stroke visual impairments

August 13 2018



Micrograph showing cortical pseudolaminar necrosis, a finding seen in strokes on medical imaging and at autopsy. H&E-LFB stain. Credit: Nephron/Wikipedia

A new University of Liverpool study, published in Wiley *Brain and Behaviour*, examines the factors that influence how a person adapts to visual field loss following stroke.

Approximately 65% of acute stroke survivors have visual impairment

which typically relates to impaired central or peripheral vision, eye movement abnormalities, or visual perceptual defects.

Symptoms can include blurred or altered vision, double or jumbled vision, loss of visual field, reading difficulty, inability to recognize familiar objects or people and glare. The factors that influence how a person adapts to a Post stroke visual impairment (PSVI) is currently an under researched area.

Compensate and adapt

In order to profile the full range of influencing factors researchers from the University's Department of Health Services Research, led by Dr. Fiona Rowe, systematically reviewed data pertaining to PSVI produced between 1861 and 2016. This data included randomized controlled trials, controlled trials, cohort studies, observational studies, and case controlled studies.

The researchers identified 47 studies which involved a total of 2,900 participants and categorised them into two sections. Section one included seventeen studies where the reviewers were able to identify a factor they considered as likely to be important for the process of adaptation to post stroke visual field loss.

Section two included thirty studies detailing interventions for visual field loss that the reviewers deemed likely to have an influence on the adaptation process.

The study highlighted a substantial amount of evidence showing patients can be supported to compensate and adapt to visual field loss following stroke using a range of strategies and methods.

Valuable starting point

Dr. Rowe, said: "This is an area that must be addressed in the interest of equality for those with visual impairment. It is vital that the factors important for adaptation be identified to allow clinicians to recognise which people are likely to have difficulty adapting and target interventions specifically within these areas, as well as to develop methods for assessing adaptation and monitoring change over time.

"Our review also highlights the fact that many unanswered questions remain: what does adaptation to visual field loss mean to the patient, carer, and clinician? How can adaptation be measured over time? Why do some people adapt more effectively and at a quicker rate than others, despite seemingly similar rehabilitation opportunities and experiences? If these questions can be answered through high quality observations and assessments then this would be a valuable starting point for understanding adaptation."

More information: Claire Howard et al, Adaptation to poststroke visual field loss: A systematic review, *Brain and Behavior* (2018). DOI: 10.1002/brb3.1041

Provided by University of Liverpool